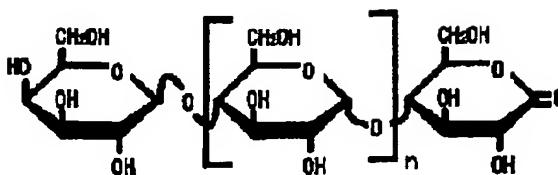


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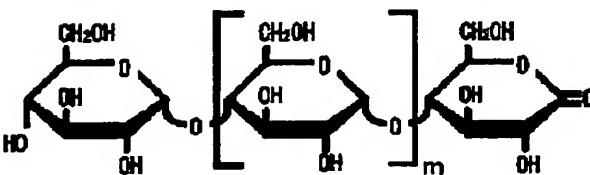
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APPLICANT : NIPPON SHOKUHIN KAKO CO LTD;

INVENTOR : NAKAMURA NOBUYUKI;

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TITLE : LACTONIZED OLIGOSACCHARIDE,
 ITS PRODUCTION AND ALPHA
 AMYLASE INHIBITOR



ABSTRACT : PURPOSE: To obtain a new lactonized oligosaccharide having strong inhibiting action on α -amylase and useful as a reagent for biochemical researches, an agent, etc., for preventing and treating obesity, diabetes mellitus, etc., by oxidizing glucose having reducing terminal in maltooligosaccharide and lactonizing the glucose.

CONSTITUTION: This oligosaccharide is a new galactosylmaltooligonolactone expressed by formula I [(n) is 1 or 2] or formula II [(m) is 1 or 2]. The oligosaccharide has strong inhibiting action on α -amylase and is useful as a reagent for biochemical researches, an agent for preventing and treating obesity, diabetes mellitus, etc. The maltooligonolactone is obtained by oxidizing glucose having reducing terminal in maltooligosaccharide and lactonizing the glucose and galactosylmaltooligonolactone is obtained by reacting a mixture of at least one kind of maltooligonolactone and maltooligosaccharic acid, etc., with a saccharide hydrolyzed by β -galactosidase with β -galactosidase.

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